

typographical errors. No new matter has been introduced by this amendment and its entry is respectfully requested.

Support for new claim 11 can be found at p. 13, line 8. Support for new claim 12 can be found at pages 9 and 10 of the specification. Support for new claim 13 can be found at p. 12, lines 2-4. Support for new claim 14 can be found at p. 17 of the specification. No new matter has been introduced by this amendment and its entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

#### ***Description of the Invention***

The present invention relates to methods of identifying binding sites on proteins, methods for identifying classes of compounds suitable for binding a protein, and methods of conducting experiments to identify compounds that interact with a protein to affect a biological process.

#### ***Rejections under 35 U.S.C. § 112***

In the Office Action, the Examiner has rejected claims 1-8 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which application regards as the invention. Applicants traverse.

At page 2 of the Office Action the Examiner has alleged that it is not clear what "parameter B" is in claim 1. Parameter B is related to the excess chemical potential. See page

7, lines 6-12. Applicants refer the Examiner to p. 15, line 6 of the specification for a definition of parameter B. Withdrawal of this rejection is respectfully requested.

The Examiner has rejected claim 1, alleging that it is not clear what is meant by "simulated annealing of chemical potential" and that there is no clear definition in the specification. Applicants refer the Examiner to p. 17, line 19 to p. 18, line 5 for a explanation of simulated annealing of chemical potential. Following this paragraph is an illustration of simulated annealing of chemical potential. In view of these explanations, it is submitted that "simulated annealing of chemical potential" is clearly defined in the specification. Withdrawal of this rejection is respectfully requested.

The Examiner has stated, at page 2 of the Office Action that the recitation of "elements that would contribute" in claim 5 is confusing because it is not clear as to the nature of the contribution. Applicants respectfully disagree. Claim 5 claims a method which comprises, *inter alia*, reducing the binding stringency of an organic fragment in the vicinity of a cluster to identify elements that would contribute to the binding of a bioactive agent. Thus, the elements which are identified are those which would contribute to the binding of a bioactive agent. Therefore, withdrawal of this rejection is respectfully requested.

The Examiner has alleged that in claim 6, it is not clear what is meant by "at separate values a measure of chemical potential". The Examiner has also stated that claim 6 recites "step (c)" which is confusing. Applicants have amended claim 6 to read "at separate values of a measure of chemical potential" and claim 6 has been amended to be dependent upon claim 3, which has a step "(c)". Therefore, withdrawal of this rejection is respectfully requested.


### *Conclusion*

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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